AGREEMENT

BETWEEN THE

DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

AND

THE FEDERAL MINISTRY OF EDUCATION, SCIENCE, RESEARCH AND TECHNOLOGY OF THE FEDERAL REPUBLIC OF GERMANY

ON

COOPERATION IN ENERGY RESEARCH, SCIENCE AND TECHNOLOGY, AND DEVELOPMENT

The Department of Energy of the United States of America and the Federal Ministry of Education, Science, Research and Technology of the Federal Republic of Germany, hereinafter referred to as the "Parties":

Having a mutual interest in increasing the effectiveness of their respective countries' programs of energy research, science and technology, and development and technical demonstration, and in pursuing related cooperation;

Believing that increased international cooperation in energy research, science and technology, and consultations on development will promote the accomplishment of mutually beneficial objectives;

Desiring to establish closer relationships between scientific, technological, commercial and industrial organizations within the United States of America and the Federal Republic of Germany;

Recognizing that energy security and the quality of life can be enhanced through the effective and environmentally-sound utilization of energy sources; and

Noting that cooperation to support such utilization of energy sources would promote increased scientific and technological interaction, facilitate technology transfer, accelerate the commercialization of energy systems and products, and expand opportunities for international trade between the United States of America and the Federal Republic of Germany;

Have agreed as follows:

ARTICLE I OBJECTIVE

The objective of this Agreement is to establish cooperative activities by the Parties in the areas of energy research, science and technology, and development. Cooperation between the Parties shall be conducted on the basis of mutual benefit, equality, and reciprocity.

ARTICLE II AREAS OF COOPERATION

The areas of cooperation under this Agreement may include the following:

- A. Energy efficiency and renewable energy;
- B. Fossil energy, including clean coal technologies and natural gas;
- C. Nuclear energy, including fission and fusion technologies and radioactive waste management; and
- D. Such other areas as the Parties may agree.

ARTICLE III FORMS OF COOPERATION

The forms of cooperation in the areas specified in Article II of this Agreement may include the following:

- A. Exchange of scientists, engineers and other specialists for participation in agreed research, development, analysis, design, and experimental activities conducted in research centers, laboratories, and other facilities and enterprises of the Parties;
- B. Organizing and participating in seminars and workshops on specific energy technology or policy issues, as mutually agreed;
- C. Promoting the development, demonstration, and utilization of energy technologies that are economically competitive and environmentally acceptable;
- D. Promoting the development of system-analysis instruments, computer tools, and databases in support of efforts to reduce the emissions of greenhouse gases and to minimize environmental impacts;

- E. Sharing relevant information and practical experience;
- F. Participating in joint government-industry activities and faculty and student exchanges and tours, and development and transfer of skills and technology to support human resources and institutional infrastructure;
- G. Joint projects in which the Parties agreed to share work and/or costs; and
- H. Such other forms of cooperation within the scope of this Agreement as the Parties may agree.

ARTICLE IV PARTICIPATION OF COOPERATIVE ENTITIES

The Parties may invite additional public or private organizations in the country of either Party, hereinafter referred to as "cooperative entities", to participate in activities under this Agreement. Each cooperative entity shall participate at its own expense and in accordance with terms and conditions specified by the Parties.

ARTICLE V MANAGEMENT

- A. The Parties shall establish a Joint Steering Committee to undertake the following tasks:
 - 1. Evaluating and agreeing on joint projects;
 - 2. Developing implementing annexes as specified under Article VI below;
 - 3. Coordinating and evaluating activities under this Agreement;
 - 4. Providing advice on specific matters as needed;
 - 5. Assessing the suitability and workability of this Agreement and proposing amendments or enhancements when necessary;
 - 6. Providing a forum to discuss the implementation of this Agreement and the conduct of specific activities under this Agreement;
 - 7. Identifying technical coordinators to manage specific activities or projects initiated under this Agreement; and
 - 8. Such other tasks as the Parties may agree.

B. Each Party shall appoint two members to the Joint Steering Committee. The Joint Steering Committee shall meet at the call of the Parties, alternately in the United States of America and the Federal Republic of Germany. The Party that hosts a meeting shall chair the meeting. If the members of the Joint Steering Committee agree unanimously, the Joint Steering Committee may undertake tasks without a formal meeting, by exchanging letters.

ARTICLE VI IMPLEMENTING ANNEXES

When the Parties agree to undertake a form of cooperation under this Agreement, the Parties may conclude an implementing annex, which shall be subject to the terms of this Agreement. Each annex should include detailed provisions for conducting and managing the cooperation, and should cover such matters as technical scope, total costs, cost-sharing between the Parties, project schedule, exchange of equipment, and any special provisions necessary for treatment of proprietary information, intellectual property, and information disclosure specific to the project. Activities under annexes may involve, as appropriate, laboratories or contractors of the Parties.

ARTICLE VII EXCHANGE OF PERSONNEL

The following provisions shall apply to exchange of personnel under this Agreement:

- A. Each Party shall ensure that qualified personnel are selected for assignments to the other Party;
- B. Each Party shall be responsible for the payment of salaries, travel, and living expenses of its personnel while on assignment to the host or receiving Party, unless otherwise agreed;
- C. The receiving Party shall arrange accommodations for the assigned personnel of the sending Party or its contractors (and their families) on a mutually agreeable, reciprocal basis;
- D. The receiving Party shall provide all necessary assistance to the assigned personnel and their families regarding administrative formalities (e.g., acquiring visas); and
- E. Each Party shall ensure that its staff or the staff of its contractors conform to the general rules of work and safety regulations in force at the host establishment.

ARTICLE VIII EXCHANGE OF EQUIPMENT

The following provisions shall apply concerning any exchange of equipment:

- A. A Party may provide equipment to be utilized in a joint activity, as mutually accepted in an implementing annex under this Agreement. The sending Party shall supply, as soon as possible, a detailed list of the equipment to be provided and the necessary specifications and technical documentation. The receiving Party shall return the equipment, spare parts and documentation to the sending Party upon completion of the joint activity in accordance with the implementing annex. Title to such equipment, spare parts and documentation shall remain in the sending Party, unless the Parties agree otherwise in writing.
- B. The receiving Party shall provide the necessary premises, shelter, and safekeeping for any equipment exchanged under this Agreement, and shall provide for electric power, water and gas and other services in accordance with any technical requirements specified in the implementing annex.
- C. With respect to all expenses for the transportation of equipment, spare parts, and documentation, including safekeeping and insurance:
 - 1. The sending Party shall be responsible for expenses incurred from the place where the equipment originally is located to the place of entry of the equipment into the country of the receiving Party and from the place of re-entry of the equipment into the country of the sending Party to the original location or to another location; and
 - 2. The receiving Party shall be responsible for expenses incurred from the place of entry of the equipment in the country of the receiving Party to the final destination in the country of the receiving Party and from the final destination in the country of the receiving Party to the place of re-entry of the equipment into the country of the sending Party.
- D. Equipment exchanged under this Article shall be considered to be of a scientific character, not of a commercial character.

ARTICLE IX INTELLECTUAL PROPERTY RIGHTS

The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this Agreement and relevant implementing annexes. The Parties agree to notify one another in a timely fashion of any inventions or copyrighted works arising under this Agreement and to seek protection for such intellectual property in a timely fashion. Rights to such intellectual property shall be allocated as provided in this Article.

A. Scope

- 1. This Article is applicable to all cooperative activities undertaken by the Parties or by cooperative entities pursuant to this Agreement, except as otherwise specifically agreed by the Parties or their cooperative entities.
- 2. For purposes of this Agreement, "intellectual property" shall have the meaning found in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967.
- 3. This Article addresses the allocation of rights, interests, and royalties between the Parties or cooperative entities. Each Party shall ensure that the other Party or cooperative entities can obtain the rights to intellectual property allocated in accordance with this Article. This Article does not otherwise alter or prejudice the allocation between a Party and its nationals, which shall be determined by that Party's laws and practices.
- 4. Disputes concerning intellectual property arising under this Agreement should be resolved through discussions between the cooperative entities or, if necessary, the Parties. Upon mutual agreement of the Parties, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with the applicable rules of international law. Unless the Parties or their cooperative entities agree otherwise in writing, the arbitration rules of UNCITRAL shall govern.
- 5. Termination or expiration of this Agreement shall not affect rights or obligations under this Article.

B. Allocation of Rights

 Each Party shall be entitled to a non-exclusive, irrevocable, royalty-free license in all countries to reproduce, publicly distribute and translate scientific and technical journal articles, reports, and books directly arising from cooperation under this Agreement. All publicly distributed copies of a copyrighted work prepared under this provision shall indicate the names of the authors of the work unless an author explicitly declines to be named. Each Party or cooperative entity shall have the right to review a translation prior to public distribution.

- 2. Rights to all forms of intellectual property, other than those rights described in paragraph B.1. above, shall be allocated as follows:
 - (a) Visiting researchers, for example, scientists visiting primarily in furtherance of their education, shall receive intellectual property rights under arrangements with their host institutions. In addition, each visiting researcher named as an inventor shall be entitled to treatment as a national of the host country with regard to awards, bonuses, benefits, or any other rewards, in accordance with the policies of the host institution.
 - (b) (1) For intellectual property created during joint research, the Parties or their cooperative entities shall jointly develop a technology management plan. The technology management plan shall consider the relative contributions of the Parties and their cooperative entities, the benefits of licensing by territory or for fields of use, requirements imposed by the Parties' domestic laws, and other factors deemed appropriate. The initial research cooperative arrangement may include the technology management plan for that specific cooperation.
 - (2) If the Parties or their cooperative entities cannot reach agreement on a joint technology management plan within a reasonable time not to exceed six (6) months from the time a Party becomes aware of the creation of the intellectual property in question, the Parties or cooperative entities shall resolve the matter in accordance with the provisions of paragraph A.4. Pending resolution of the matter, such intellectual property shall be owned jointly by the Parties or their cooperative entities, but shall be commercially exploited (including product development) only by mutual agreement.
 - (3) A specific program of research will be regarded as joint research for purposes of this Article only when it is designated as such in the relevant implementing annex, otherwise the allocation of rights to intellectual property will be in accordance with paragraph B.2.(a).

(4) In the event that either Party believes that a particular joint research project under this Agreement will lead to the creation or furnishing of intellectual property of a type protected by the applicable laws of one Party but not the other Party, the Parties shall immediately hold discussions to determine the allocation of the rights to the said intellectual property; the joint activities in question will be suspended during the discussions unless otherwise agreed by the parties thereto. If no agreement can be reached within a three-month period from the date of the request for discussions, the Parties shall cease the cooperation in the project in question.

C. Proprietary Information

In the event that information identified in a timely fashion as proprietary is furnished or created under the Agreement, each Party and its cooperative entities shall protect such information in accordance with applicable laws, regulations, and administrative practices. Without prior written consent, none of the Parties shall disclose any proprietary information except to employees, government personnel, and prime contractors and subcontractors. Such disclosures shall be for use only within the terms of their permits or licenses with the Parties or the scope of work of their contracts with the Parties and in work relating to the subject matter of the information so disseminated. The Parties shall impose, or shall have imposed, an obligation on those receiving such information to keep it confidential. If one of the Parties becomes aware that, under its laws or regulations, it will be, or may reasonably be expected to become, unable to meet the non-disclosure provisions, it shall immediately inform the other Party. The Parties shall thereafter consult to define an appropriate course of action. Information may be identified as proprietary if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential.

ARTICLE X EXCHANGE OF INFORMATION

The application or use of any information exchanged or transferred between the Parties under this Agreement shall be the responsibility of the Party receiving it, and the transmitting

Party does not warrant the suitability of such information for any particular use or application.

ARTICLE XI SECURITY OBLIGATIONS

If any activity, information, or equipment to be shared or any anticipated result of a cooperative activity undertaken, pursuant to this Agreement, requires protection in the interest of national defense or foreign relations of either Party, that Party shall so notify the other Party prior to undertaking the activity or sharing the information or equipment. The Parties shall consult to identify and agree upon appropriate measures for the protection of the activity, information, equipment, or anticipated result.

ARTICLE XII GENERAL PROVISIONS

- A. The Parties shall conduct cooperation under this Agreement in accordance with applicable laws and regulations. The obligations of each Party are subject to the availability of appropriated funds and personnel.
- B. Except as the Parties may agree in writing, all costs resulting from the implementation of this Agreement shall be borne by the Party that incurs them.
- C. All questions of interpretation of this Agreement shall be resolved by the agreement of the Parties.
- D. Nothing in this Agreement is intended to affect other arrangements for cooperation between the Parties in existence on the effective date of this Agreement.

ARTICLE XIII EFFECTIVE DATE, DURATION AND TERMINATION

- A. This Agreement shall enter into force upon the date of last signature and shall remain in force for five (5) years. This Agreement shall be renewed automatically for five (5) year periods unless either Party notifies the other in writing at least three (3) months prior to the expiration date of its intention to permit this Agreement to expire.
- B. The Parties may amend this Agreement by mutual written agreement.

- C. Either Party may terminate this Agreement at any time upon providing six (6) months' advance written notification to the other Party.
- D. Joint efforts and experiments which are not completed at the expiration or termination of this Agreement may be continued, until their completion under the terms of this Agreement, upon written agreement of the Parties.

Done, in duplicate, in the English and German languages, each text being equally authentic, this 20th day of February, 1998.

FOR THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA:

Jedison Derin

FOR THE FEDERAL MINISTRY OF EDUCATION, SCIENCE, RESEARCH AND TECHNOLOGY OF THE FEDERAL REPUBLIC OF GERMANY: